

# **Exhibit Q**

UNITED STATES DISTRICT COURT FOR THE  
WESTERN DISTRICT OF NEW YORK

TAILORED LIGHTING, INC.,

*Plaintiff,*

-vs-

OSRAM SYLVANIA PRODUCTS,  
INC.,

*Defendant.*

Civil Action No. 04-CV-6435-MAT-MWP

**SECOND AFFIDAVIT  
OF KEVIN P. McGUIRE**

I, Kevin P. McGuire, being duly sworn, deposes and states as follows:

1. I am the President of Tailored Lighting, Inc. ("Tailored Lighting"), the Plaintiff in the above-captioned action. I submit this Affidavit based upon personal information, and in opposition to the second motion for partial summary judgment on the issue of infringement filed by the Defendant, Osram Sylvania Products, Inc. ("Sylvania").

2. I am an optical engineer, with undergraduate and graduate degrees in optical engineering from the University of Rochester Institute of Optics. I have worked in the optical engineering industry for over twenty years, and have participated in the development of over one hundred products. In addition, I am the named inventor on 13 United States patents and two international patents, all related to the field of optics, specifically lighting and day-lighting.

History and Description of Tailored Lighting

3. Tailored Lighting is a small local company located in Rochester.

4. Founded in 1989, Tailored Lighting is a leading innovator in the area of replicating the characteristics of daylight using artificial light sources.

5. From its beginning, Tailored Lighting has included among its purposes products and services intended to produce artificial light that will simulate natural daylight. Its first product was the patented ColorView® Lighting System, which is a visual color matching tool for paint, wall coverings and fabric by viewing those objects in variable lighting conditions such as normal incandescent, fluorescent and daytime lighting conditions. ColorView units are in more than 2,000 home improvement stores.

6. Subsequently, Tailored Lighting invented the technology incorporated in SoLux® lamps, which are quartz halogen lamps emitting usable light that simulates daylight at specific daylight color temperatures. SoLux® lamps are made under license from Tailored Lighting and are in use in prestigious locations around the world where discriminating and color-safe lighting is critical. Examples are the Rijksmuseum, the Van Gogh Museum and the Rembrandt House in Amsterdam; the National Gallery of Art and the Library of Congress in Washington, D.C.; the Los Angeles County Museum; the Guggenheim Museum, the American Museum of Natural History and the Metropolitan Museum of Art's The Cloisters in New York; the Museum of Natural History in San Diego; the Philadelphia Museum of Art; the Cincinnati Art Museum; and the Museum of Fine Arts in Houston. Among many other locations and customers for SoLux® lamps are 3M, BASF, Kodak, Dupont, Sherwin Williams, Benjamin Moore Paint, Home Depot, Lowes, Valspar, Christian Bernard, Ralph Loren, Rolex, Gucci and numerous gem and jewelry shops.

7. SoLux® lamps licensed by Tailored Lighting also are used in specialty applications such as color proofing in print shops, quality control, automobile paint matching, medical/dental lighting, light therapy for Seasonal Affective Disorder, and underwater exploration and photography.

8. Lamps using Tailored Lighting's patented technology have been and are being sold in many countries of the world, including North America, Europe and Japan, whether for residential, commercial, retail, business office or industrial applications.

The '017 Patent

9. I am the named inventor of United States Patent No. 5,666,017 (the "'017 Patent"). Tailored Lighting is the assignee of the '017 Patent.

10. The '017 Patent teaches a lamp "for producing a spectral light distribution which is substantially identical in uniformity to the spectral light distribution of a desired daylight throughout the entire visible light spectrum."

11. In other words, lamps covered by the '017 Patent attempt to replicate daylight characteristics in the manner described in the patent.

12. Claim 1 of the '017 Patent claims the following invention:

A lamp for producing a spectral light distribution substantially identical in uniformity to the spectral light distribution of a desired daylight with a color temperature of from about 3500 to about 10,000 degrees Kelvin throughout the entire visible light spectrum from about 380 to about 780 nanometers, comprising:

(a) an enclosed lamp envelope having an interior surface and an exterior surface;

(b) a light-producing element substantially centrally disposed within said lamp envelope and which, when excited by electrical energy, emits radiant energy throughout the entire visible spectrum with

wavelengths from about 200 to about 2,000 nanometers at non-uniform levels of radiant energy across the visible spectrum; and

(c) at least one coating on at least one of said surfaces and having a transmittance level in substantial accordance with the formula

$$T(l)=[D(l)-[S^*(l)\times(1-N)]]/[S(l)\times N],$$

wherein  $T(l)$  is the transmission of said envelope coating for said wavelength  $l$  from about 380 to about 780 nanometers,  $D(l)$  is the radiance of said wavelength for the desired daylight,  $S(l)$  is the radiance of said element at said wavelength at normal incidence to said lamp envelope,  $S^*(l)$  is the radiance of said element at said wavelength at non-normal incidence to said lamp envelope, and  $N$  is the percentage of visible spectrum radiant energy directed normally towards said exterior surface of said lamp envelope.

13. A lamp covered by the '017 Patent "contains a lamp envelope comprised of an exterior surface, a light-producing element substantially centrally disposed within said lamp envelope, and a coating on said exterior surface of said lamp envelope."

14. Typically, and for the purposes of the present motion, the lamp envelope is a glass or equivalent enclosure or "bulb," and the light-producing element is a metal filament that, when excited by electrical energy, emits radiant energy at least throughout the entire visible spectrum.

15. The coating on the exterior surface of the lamp is either a reflective or an absorptive coating, or both. These coatings either selectively reflect light emitted by the filament back to the filament or selectively absorb some or most of the light emitted by the filament, depending upon the wavelength.

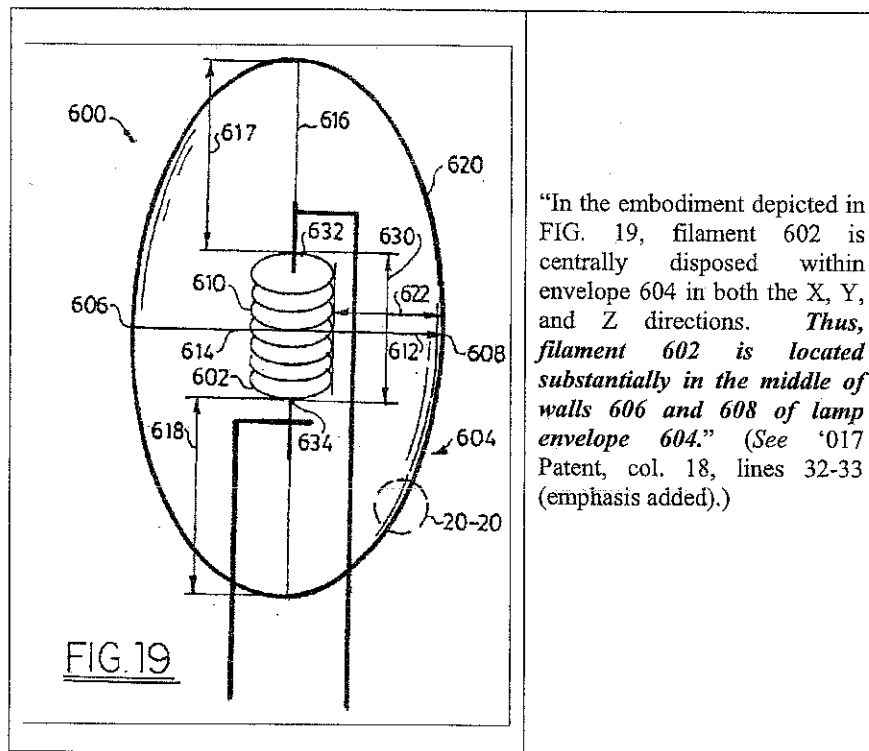
16. For the purpose of the present motion, it is important to note that lamps that use an absorptive coating do not have focal points within the lamp envelope.

“Substantially Centrally Disposed”

17. As noted above, Claim 1 of the '017 Patent teaches “a light-producing element substantially centrally disposed within said lamp envelope” without further limitation.

18. It is my understanding that Sylvania argues that the “light producing elements” of “axially offset filament lamps” cannot be “substantially centrally disposed” because they are not at the absolute center of the lamp envelope. However, that is not what Claim 1 of the '017 Patent requires. Rather, Claim 1 requires only that the filament be “substantially” centrally disposed, or in other words, located *at or near* the center of the lamp envelope.

19. I understand from Sylvania’s motion that Sylvania wants to equate exactly the term “substantially centrally disposed” as used in Claim 1 with the preferred embodiment as illustrated by Figure 19 of the '017 Patent (see below).



20. As should be clear, a filament of the preferred embodiment of Figure 19 being “centrally disposed” does not exclude from Claim 1 of the ‘017 Patent embodiments in which the filaments are “substantially centrally disposed” or located *at or near* the center of the lamp envelope.

The Accused Sylvania Products

21. Sylvania manufactures and sells, among many other things, automobile headlamps under its SilverStar and Cool Blue trademarks.

22. Sylvania has marketed these products as replicating daylight, thus professing to have the same lighting characteristics as those taught in the ‘017 Patent. Copies of marketing materials Sylvania has used are attached hereto as Exhibit “A”.

23. I understand that Sylvania has argued that nine (9) of its SilverStar and Cool Blue lamps (model nos. 9006CB, 9006XSCB, 9007CB, H7CB, 9006ST, 9006XSST, 9007ST, H1ST, H7ST) cannot infringe Claim 1 of the ‘017 Patent because the filaments in those products are slightly off set from the centermost vertical axis of the lamp envelope.

24. However, simply by looking at Sylvania’s own x-ray images of its products (see Sylvania Exhibit B), it is plain that one or more of the filaments used in the accused Sylvania products are located at or near the center of the lamp envelope, and thus are “substantially” located near the center of the envelope and fall within the scope of Claim 1 of the ‘017 Patent. At the very least, this question is a question of fact.

25. In fact, as illustrated in Exhibit “B” hereto, the center of the lamp envelope of the accused products can be found by superimposing a grid over the x-ray images provided by Sylvania, and then using the grid to identify and draw the centermost vertical and horizontal axes of the envelope. The intersection of those two axes identifies the center of the lamp envelope.

As can be seen from the images, it is clear that one or more of the filaments are located *at or near* the center of the respective lamp envelope, and are thus “substantially” centrally disposed.

26. It is my understanding that Sylvania also claims that Figure 19 of the ‘017 Patent supports its argument that the “axially-offset” filaments of the accused products are not “substantially centrally disposed.” However, as illustrated in Exhibit “C” hereto, when an image of Figure 19 is superimposed onto the x-ray images of the accused products provided by Sylvania, and the width of the bulb envelope depicted in Figure 19 is adjusted to correspond to the width of the bulb envelope of each of the accused products, at least one filament in each of the accused products lies within the filament depicted in Figure 19. Just as the Figure 19 filament of the preferred embodiment as illustrated is “centrally disposed,” the “axially-offset” filaments of the Sylvania lamps are *at or near* the position of the Figure 19 filament and thus are at least “substantially centrally disposed.”

27. With respect to the Sylvania lamps that use more than one filament, it is important to note that simply because there is more than one filament used in the lamps it does not mean that the lamps are outside the scope of the ‘017 Patent. Rather, the ‘017 Patent makes clear that “other light-emitting elements can be used in place of *or in addition to* [the] filament” described in Claim 1 of the patent (*see* ‘017 Patent, col. 18, lines 3-6), thus making clear that Claim 1 of the ‘017 Patent covers lamps with more than one filament or other “light-emitting element” so long as the lamp has one filament that is “substantially centrally disposed” within the envelope. As applied to the Sylvania lamps that use more than one filament, the inclusion of the word “substantially” means that all Claim 1 requires is that one or more of the filaments be located at or near the center of the lamp envelope. As can be seen from the material submitted by Sylvania,

the Sylvania lamps that use more than one filament contain at least one filament that is “substantially” centered within the envelope, and thus are covered by Claim 1.

28. In any event, my testing and evaluation of Sylvania SilverStar and Cool Blue lamps reveals that the accused Sylvania products subject to the present motion replicate daylight characteristics in the same manner as is taught in the ‘017 Patent. For example, my testing reveals that the accused Sylvania lamps produce “a spectral light distribution which is substantially identical in uniformity to the spectral light distribution of a desired daylight from about 3500 to about 10,000 degrees Kelvin throughout the entire visible light spectrum from about 380 to about 780 nanometers.” Moreover, the lamps have a lamp envelope with an interior surface and an exterior surface. In addition, the lamps have one or more light-producing elements “substantially centrally disposed within said lamp envelope and which, when excited by electrical energy, emits radiant energy throughout the entire visible spectrum with wavelengths from about 200 to about 2,000 nanometers at non-uniform levels of radiant energy across the visible spectrum.” Finally, my testing reveals that the accused Sylvania lamps (including those with horizontal and “double” horizontal filaments) have at least one coating on either the interior or exterior surface of the lamp envelope that has a transmittance level in substantial accordance with the formula in Claim 1 of the ‘017 Patent.

29. Moreover, Claim 1 of the ‘017 Patent specifically states that the function to be performed by the filament (or “light-producing element”) is to “emit[] radiant energy.”

30. My testing reveals that the filaments in the accused Sylvania products “emit[] radiant energy.” It is also true for the Sylvania lamps that have more than one filament. Thus, my testing reveals that the filaments in these products perform the same function as the filaments described in Claim 1.

31. Similarly, Claim 1 of the '017 Patent states that the way in which this function is performed is by "excit[ing] [the filament] by electrical energy."

32. Here again, my testing reveals that the filaments in the Sylvania products in question (whether with one or more filaments) emit radiant energy by being excited with electrical energy. Thus, the filaments in the Sylvania products (including those subject to the present motion) perform the same function as the filament in Claim 1 in the same way as described by the claim.

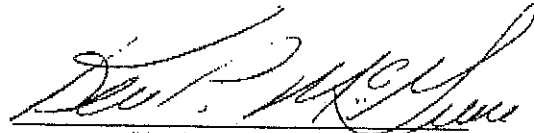
33. Likewise, Claim 1 of the '017 Patent explicitly identifies the result of exciting the filament with electrical energy as radiant energy being emitted "throughout the entire visible spectrum with wavelengths from about 200 to about 2,000 nanometers at non-uniform levels of radiant energy across the visible spectrum."

34. My testing of Sylvania lamps confirms that the filaments used in those products emit radiant energy throughout the entire visible spectrum with wavelengths from about 200 to about 2,000 nanometers at non-uniform levels of radiant energy across the visible spectrum when excited with electricity. This applies equally to all of the relevant lamps, including those with one or more filaments.

35. Thus, my testing also reveals that, notwithstanding the exact position or orientation of the filaments in the accused Sylvania products (including those subject to the present motion), they still perform the same function of Claim 1, the way they perform that function, and the result achieved.


Conclusion

36. For the reasons set forth above and in Tailored Lighting's accompanying memorandum of law, I respectfully request that the Court deny Sylvania's second motion for partial summary judgment with prejudice.



Kevin P. McGuire

Subscribed and sworn to before me  
this 28th day of March, 2005.



Notary Public  
MARY ELLEN FELLING  
NOTARY PUBLIC, STATE OF NEW YORK  
COUNTY OF MONROE  
MY COMMISSION EXPIRES 9/30/2006

**CERTIFICATE OF SERVICE**

I, Douglas J. Nash, as attorney for Plaintiff, Tailored Lighting, Inc., hereby certify that, on this 28<sup>th</sup> day of March, 2005, I caused the Second Affidavit of Kevin P. McGuire, sworn to on March 28, 2005, to be electronically filed with the Clerk of the District Court for the Western District of New York using the CM/ECF system, which sent notification of such filing to the following:

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/s/ Douglas J. Nash

Douglas J. Nash